

Title (en)  
APPARATUS FOR INSTALLING FASTENERS

Publication  
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Application  
**EP 90305588 A 19900523**

Priority  
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Abstract (en)  
[origin: EP0399798A2] For use in a robotically operated workstation , apparatus for installing fasteners, for example tubular blind rivets, comprises a pneumatically operated fastener installation tool (16). The tool 16 has a part in the form of a headed mandrel (22) which is loaded with and carries a finite supply of the fasteners, a gripping and pulling actuator (26) and a nose assembly (21) which provides an abutment (18) for supporting successive rivets while the mandrel is pulled to draw its head through and set the rivet. For reloading the tool with further fasteners, after use, the apparatus includes a nest (96b) for detaching and receiving the mandrel (22), together with the nose assembly (21), from the actuator (26), and a similar nest (96a) provided with another nose assembly and another mandrel fully loaded with fasteners which it presents and attaches to the actuator (26). An indexing table (110) interchanges the nests (96a) and (96b) between a station for reception and presentation of mandrels with nose assemblies, and a reloading station at which further fasteners are loaded on to a mandrel by feeding and transfer means (150). An alternative or supplementary reloading system includes a nest (90) for reception of a used mandrel and nose assembly from the tool (16), and at least one other nest (91) containing another nose assembly and a mandrel carrying a full load of fasteners for presentation to a tool actuator from which the mandrel and nose assembly have been removed.

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Citation (search report)  
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